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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,168	03/16/2006	Atsushi Tabuchi	CNP-US030140	3831
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EXAMINER				
SHAH, TUSHAR S				
ART UNIT		PAPER NUMBER		
2184				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/595,168

Applicant(s)

TABUCHI, ATSUSHI

Examiner

TUSHAR S. SHAH

Art Unit

2184

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8, 9, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4, 8, 9, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/08)
- Paper No(s)/Mail Date 3/6/2009.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Status of Claims

Claims 1-4, 8 and 9 are pending in this application, of which claims 1 and 8 are in independent form. Claims 1, 2, 4, 8 and 9 have been amended, Claim 10 has been canceled.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 8, 9, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stallkamp US Patent No. 6,895,009 B1 (hereinafter Stallkamp) in view of Domon US Publication No. 2003/0014679 A1.

Referring to claim 1, Stallkamp discloses, a data conversion system in which one of a plurality of nodes (Master 106 and A/V devices 108 and 110, Stallkamp Fig. 1) on an IEEE1394 bus (isochronous network 104 is IEEE 1394 compliant, Stallkamp, column 4, lines 56-60) serves as a cycle master (Master 106, Stallkamp Fig. 1),

a first node of the plurality of nodes comprises an external synchronizing signal receiver (SYNC 254, Stallkamp Fig. 2) for receiving an external reference signal (house reference signal 225, Stallkamp Fig. 2) provided on at least one of the first and second nodes (the house reference signal is provided to each node by the bus 102, Stallkamp Figs 1 and 2), and

a synchronization adjustment unit for controlling the frequency of the cycle start packet output from the cycle master and linking the frequency of the cycle start packet with the frequency of the reference signal received by the external synchronizing signal receiver (Synchronizer 254 synchronizes the operating frequencies of AV devices and enables data based in one time domain to be transmitted over an isochronous bus of a second time domain, Stallkamp column 5, lines 10-20).

It is noted that Stallkamp does not appear to explicitly disclose, transmits data from one of the plurality of nodes to another node of the plurality of nodes at a transfer rate synchronized with a cycle start packet output from the cycle master.

The first node or a second node of the plurality of nodes comprises a data conversion unit for converting the data and outputting the converted data in synchronism with the reference signal.

However, Domon discloses, transmits data (Digital Video data is mapped into isochronous packets and received by a digital video player 220, Domon page 6, paragraph 0098 lines 3-8 and paragraph 009, lines 1-3) from one of the plurality of nodes to another node of the plurality of nodes at an output rate synchronized with a cycle start packet output from the cycle master (the cycle master outputs a cycle start

packet to the other nodes in the network to synchronize them to the master, Domon page 1, paragraph 0017, lines 1-5), and converts the data in the other node (the digital video player 220 decodes a digital video signal of DV format received from the IEEE1394 bus and outputs an analog video signal, Domon page 6, paragraph 0098, lines 6-8) of the plurality of nodes.

The first node or a second node of the plurality of nodes comprises a data conversion unit for converting the data and outputting the converted data (the digital video player 220 decodes the DV format data and outputs an analog video signal, Domon page 6, paragraph 0098, lines 6-8) in synchronism with the reference signal.

Stallkamp and Domon are analogous art because they are from the same field of endeavor, namely, they both synchronous video data transmitted over an IEEE 1394 bus.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Stallkamp and Domon before him or her, to enhance the communication and conversion methods of Domon with the synchronization with the house reference signal of Stallkamp.

The suggestion/motivation for doing so is present in Stallkamp, column 1 lines 59-67), where it states that A/V data may have been generated based on a clock and rate different from that of the isochronous bus used to transmit it and therefore the house reference signal with allow synchronization with both clock rates.

Therefore it would have been obvious to combine Domon with Stallkamp to obtain the invention as recited in the instant claim.

As per claim 2, it is noted that Stallkamp does not appear to explicitly disclose, the transmitted data and the converted data are image data, and the transmitted image data is a video signal in DV format and the converted image data is an analog video signal or SDI video signal.

However Domon discloses, the transmitted data and the converted data are image data, and the transmitted image data is a video signal in DV format and the converted image data is an analog video signal or SDI video signal (the digital video player 220 decodes the DV format data and outputs an analog video signal, Domon page 6, paragraph 0098, lines 6-8).

Stallkamp and Domon are analogous art because they are from the same field of endeavor, namely, they both synchronous video data transmitted over an IEEE 1394 bus.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Stallkamp and Domon before him or her, to enhance the communication and conversion methods of Domon with the synchronization with the house reference signal of Stallkamp.

The suggestion/motivation for doing so is present in Stallkamp, column 1 lines 59-67), where it states that A/V data may have been generated based on a clock and rate different from that of the isochronous bus used to transmit it and therefore the house reference signal with allow synchronization with both clock rates.

Therefore it would have been obvious to combine Domon with Stallkamp to obtain the invention as recited in the instant claim.

As per claim 3, the first node serves as cycle master for data transfer (AV devices 108 and 110 may function as the cycle master and maybe a device such as a digital video camera, Stallkamp column 3, lines 17-19 and 37-41).

As per claim 4, Stallkamp discloses, the second node comprises a second synchronization adjustment unit (SYNC 254, Stallkamp Fig. 2),

the frequency of the cycle start packet is linked with the frequency of the reference signal (Synchronizer 254 synchronizes the operating frequencies of AV devices and enables data based in one time domain to be transmitted over an isochronous bus of a second time domain, Stallkamp column 5, lines 10-20) by the synchronization adjustment unit of the node that serves as the cycle master (Either AV node 108 or AV node 110 may serve as cycle master, column 3, lines 37-41) (Therefore the second node, node, whether 108 or 110, may serve as the cycle master and synchronize itself internally).

Referring to claim 8, similar limitations as in claim 1 are recited. Therefore the rejection of claim 1 applies to claim 8.

As per claim 9, similar limitations as in claim 2 are recited. Therefore the rejection of claim 2 applies to claim 9.

As per claim 11, Stallkamp discloses, the second node of the plurality of nodes includes the cycle master and the frequency of the cycle start packet outputted from the cycle master is controller by the synchronization adjustment unit of the first node (the AV devices may have additional functionality allowing them to serve as cycle master in lieu of master 106 and would therefore contain the SYNC unit of the master, column 3, lines 40-42).

As per claim 12, Stallkamp discloses, the synchronization adjustment unit for controlling the frequency of the cycle start packet output from the cycle master is located at a first node and the cycle master is located at a second node in communication with the first node (the AV devices may have additional functionality allowing them to serve as cycle master in lieu of master 106 and would therefore contain the SYNC unit of the master, column 3, lines 40-42).

Response to Arguments

1. Applicant's arguments filed 12/30/2008 have been fully considered but they are not persuasive.

Regarding claim 1, the applicant has argued, on pages 7-9 of the response, that the cited Stallkamp and Domon references fail to teach the limitations “a synchronization adjustment unit to control the frequency of a cycle start packet output from the cycle master,” and, “linking the frequency of the cycle start packet with the frequency of the reference signal.”

Referring to applicants arguments to claim 1, the examiner disagrees that the cited art fails to teach, “a synchronization adjustment unit to control the frequency of a cycle start packet output from the cycle master,” and, “linking the frequency of the cycle start packet with the frequency of the reference signal.”

The Stallkamp reference, column 5, lines 15-20, clearly discloses that the synchronizer 254 receives a synchronization signal from bus 102, which is a different time domain than the isochronous cycle master time domain, and the A/V data to be set to the new time domain, based on the reference signal. Also, at column 3, lines 27-35, Stallkamp discloses that the IEEE 1394 master periodically transmits a cycle start packet over the isochronous bus to alert the connected nodes to begin transmission, not at the frequency of the isochronous bus as suggested by the applicant, on page 8 of the response. Further, the house reference signal, which is distributed over the isochronous network, is asynchronous to the isochronous network, see column 3, lines 48-53. The house reference signal is tied to the cycle start packets in that the reference signal must synchronize the AV stream with the master node and the master node controls when to start that stream with the cycle start packet signal. The periodic nature of the cycle start

packet would have to be tied to the reference signal in order to ensure that the stream is received and decoded properly. The grounds of rejection are maintained.

Regarding further claims, the applicant has applied similar reasoning as with claim 1. As the issues with the rejection of claim 1 are seen as overcome the grounds of rejection to the remaining claims are maintained.

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUSHAR S. SHAH whose telephone number is (571)270-1970. The examiner can normally be reached on Mon-Fri 7:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on 571-272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. S. S./
Examiner, Art Unit 2184

**/Henry W.H. Tsai/
Supervisory Patent Examiner, Art Unit 2184**